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The Gulf Coast Rumbler

Volume 1, Issue 2

Fall 2010

Meet Chris Rothwell

Greetings from the training desk! I am Christopher Rothwell, the Student Career Education Program (SCEP) recipient at the NWS in Mobile. My fascination with weather began in 1992 with the passage of Hurricane Andrew across southern Florida. The forces involved with Andrew's fast moving clouds perplexed my young mind; ever since then, I have not been able to keep my eyes off the sky. After receiving a previous B.S. in Psychology from the University of Florida, I went back to school to pursue my true passion, weather. I am finishing a B.S. degree in Meteorology at the University of South Alabama, with plans to graduate this coming spring. By the time I graduate, I will have worked as a SCEP in the NWS for nearly a year.

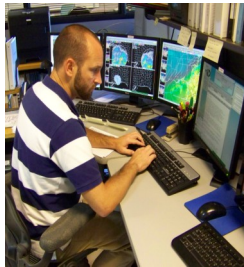
The SCEP position provides an excellent opportunity for students pursuing bachelor's degrees in Meteorology to gain valuable work experience in a NWS office. Since starting this last June, 2010, I



have helped with many of the products associated with the Hydrometeorological (HMT) Desk: quality control of NWR weather radio products, river forecasts, surf (SRF) reports, climate (CLI) reports, radar checks, supplementary climate data (SCDs), and the dissemination of flood and storm warnings. I have also helped with hurricane local statements (HLS), Graphiccasts, drought (DGT) reports, post storm (PSH) Reports, and warning confirmations.

The SCEP position has taught me a great deal about the inner 'workings' of a weather forecast office.

(continued on page 2)



Chris Rothwell

By having the opportunity to see the NWS from the inside, I have been able to decide on my future

career path with much certainty--to be a forecaster in the NWS.

"The SCEP position has taught me a great deal about the inner 'workings' of a weather forecast office"

"The objective here is to provide weather information that is accurate and timely so we can eliminate many of the risks to their safety and well being"

Deepwater Horizon Oil Spill: Your National Weather Service Responds

Jeff Garmon, Warning Coordination Meteorologist
Jason Beaman, Senior Forecaster

Starting on day one of the Deepwater Horizon explosion, the National Weather Service played a significant role providing critical weather forecast information to key decision-makers that was used to safely carry out the oil spill response effort. The response of the National Oceanic and Atmospheric Administration (NOAA) and the National Weather Service (NWS) to this effort was immediate. In short order, two joint incident command centers were established in Houma, Louisiana and Mobile, Alabama where representatives from British Petroleum, local, state and federal agencies were briefed several times daily by National Weather Service meteorologists with up-to-the-minute weather data. This enabled these key decision-makers to make "go - no go" decisions for beach clean-up, marine and airborne operations.



Fire boat response crews battle the blazing remnants of the off shore oil rig Deepwater Horizon April 21, 2010.

Your National Weather Service offices provided valuable weather information to not only decision-makers at the incident command centers, but also to local decision-makers at several spill response staging areas along the Gulf Coast. This information was used to keep workers safe from not only the threats of thunderstorms, tropical storms, and dangerous sea conditions, but also from the effects of excessive heat . (continued on page 3)

Deepwater Horizon Oil Spill



Joint Incident Command Center, Mobile AL – NWS Mobile/Pensacola Response Meteorologist John Werner briefing NOAA Environmental Response Scientific Support Coordinator Ruth Yender on expected wind and wave patterns off the western Florida panhandle on August 25, 2010.

At the height of the response, at least 2,000 government and private “Vessels of Opportunity” were working the event, conducting booming and skimming operations as well as searching for oil slicks

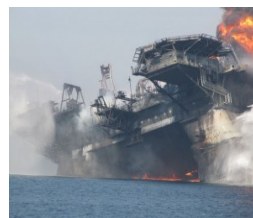
More specifically, the information provided by National Weather Service meteorologists gave key decision-makers the ability to plan accordingly, maximizing work time safely outside expected periods of hazardous weather.

At the height of the response, at least 2,000 government and private “Vessels of Opportunity” were working the event, conducting booming and skimming operations as well as searching for oil slicks. Along the coastline, thousands of clean-up workers were deployed daily from Louisiana eastward to our beautiful sugar white beaches of northwest Florida.

While British Petroleum finally stopped the gushing oil with a new cap on July 15, the recovery efforts continue in and around the Gulf of Mexico.

For the thousands of people working the Deepwater Horizon event in the air, on land, and at sea, the National Weather Service's primary, overriding concern is safety. “The objective here is to provide weather information that is accurate and timely so we can eliminate many of the risks to their safety and well being,” said David McShane, Meteorologist in Charge of the Mobile/Pensacola National Weather Service Forecast Office “Basically - it's our core mission of protecting life.”

Below: Deepwater Horizon Rig explosion



Pensacola, FL - Workers clean oil on Pensacola Beach on June 23, 2010. U.S. Air Force photo by Tech. Sgt. Emily F. Alley.

Deepwater Horizon Oil Spill



Above: Panama City, FL - Workers offload protective boom to pre-positioned areas along the Florida panhandle on May 11,

Information provided by National Weather Service meteorologists gave key decision-makers the ability to plan accordingly, maximizing work time safely outside expected periods of hazardous weather.

Right:: Example of a morning weather briefing presented to the Command Staff of the Mobile, AL Incident Command Post.

British Petroleum stopped the gushing oil with a new cap on July 15.

While the emergency response and on site weather support has come to an end, the long term restoration response is still ongoing. The National Weather Service in Mobile continues to provide weather support when requested to local, state, and federal officials in charge of the beach restoration process.



48 Hour Forecast



Near Shore (coast to 20 nm out)

Period	Rain Chance	Winds	Seas	Protected Waters	Highs/Lows	Heat Index
Today	30-50%	N-E 10 KT	1-2 ft	Light Chop	Mid 90s	103-109
Tonight	20%	NE 10 KT	1-2 ft	Smooth-Light Chop	Upper 70s	90-95
Tuesday	20%	NE 10-15 KT	2-3 ft	Light Chop	Mid 90s	102-108
Tuesday Night	30%	E 15 KT	2-4 ft	Light Chop/Choppy	Upper 70s	Near 90

Offshore (20-60 nm out)

Period	Rain Chance	Winds	Seas
Today	40%	N-E 10-15 KT	2 ft
Tonight	20%	E-NE 10-15 KT	2-3 ft
Tuesday	30%	NE 15 KT	3-4 ft
Tuesday Night	50%	NE 15-20 KT	3-5 ft



48 Hour Forecast Highlights



- Heat indices will range from 103 to 109 from 1100 CDT through 1700 CDT. Heat advisory today MS.
- Scattered thunderstorms offshore in the morning will develop along the coast and inland in the afternoon hours.
 - Storms will be prolific lightning producers.
- Will need to monitor the development of a low pressure area 110 miles ESE of Saint Augustine. Expected to move into Gulf Tuesday morning.

Community Collaborative Rain, Hail and Snow Network (CoCoRaHS)

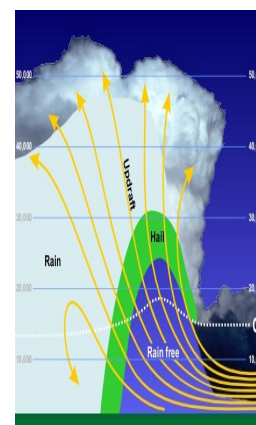
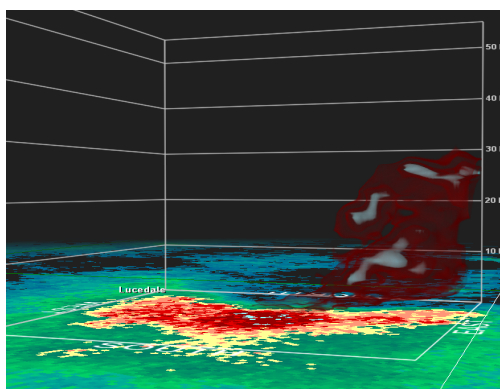
Jack Cullen, Forecaster

Do you have an interest in weather and would you like to help your local community as well as the National Weather Service? If so, then CoCoRaHS is for you. It only takes a few minutes a day and gives you a chance to have your rainfall information recorded. The data then can be used for various projects and research initiatives. However, more importantly the data will be used by your local National Weather Service office to more accurately issue Flash Flood watches and warnings. The official rain gauge network across southeast Mississippi, southwest Alabama and

northwest Florida is very sparse. There are many times when these sites record little if any rainfall, yet only a few miles away several inches may have fallen. CoCoRaHS reports are crucial in filling these data void regions. Volunteers post their daily rainfall on the CoCoRaHS website. The observations are immediately available for you to see and compare against other observers in your area and across the country. If you would like to volunteer, go to www.cocorahs.org where you can purchase a rain gauge and sign up



CoCoRaHS reports are crucial in filling these data void regions.



Above photo: Quarter size hail in Lucedale, MS on April 24, 2010. Photo courtesy of a viewer from WKRG-TV. The radar image is from GR Level Analyst Lit Volume (KMOB) at 0220 AM CDT.

The diagram shows how hail develops in a thunderstorm.

A New Cast in Forecasting , The Graphic-Cast

Joe Maniscalco, Forecaster



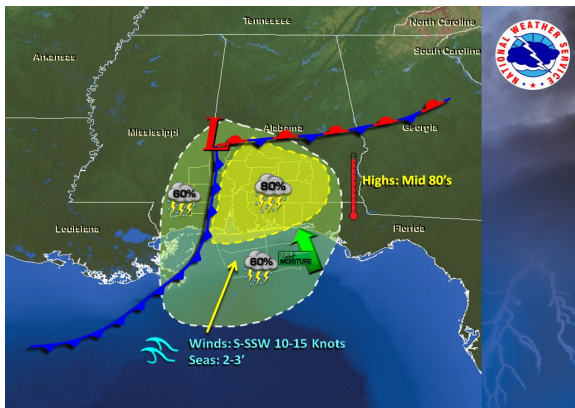
Above: Graphiccast banner on National Weather Service Mobile, Alabama's Web Page
www.srh.noaa.gov/mob

The Mission of the the National Weather Service (NWS) is to provide weather, hydrologic, and climate forecasts and warnings for the United States, its territories, adjacent waters and ocean areas, for the protection of life and property and the enhancement of the national economy. NWS data and products form a national information database and infrastructure which can be used by other governmental agencies, the private sector, the public, and the global community. The National Weather Service in Mobile has forecast and warning responsibility for 20 counties involving three states including the Alabama and Western Florida Coastal Waters out 60 Nautical Miles. A wide array of weather hazards impact the local area from strong to severe thunderstorms including tornadoes, tropical weather, flooding, river flooding, fog, strong winds, high seas, rip currents, drought – increased fire danger threats, and winter weather.

With the evolving digital age and an ever expanding internet, the need for digital and graphical weather forecast products have

moved to the forefront. It has and continues to be said that a picture is worth a thousand words. Considering this and in support of the mission, the National Weather Service in Mobile Alabama has added an enhancement to its core services, by providing graphic-casts as a bannered link on its front page. The graphic-cast has proved to be an excellent tool to convey weather hazards while also showing the weather feature forecast to cause the conditions, whether it is from a high pressure system, a tropical system, a cold frontal passage or an area of low pressure. Graphic-casts issued by the National Weather Service in Mobile give a visualization of weather patterns and features, some of which can be complicated to adequately describe in text forecast products. Whether it's dense fog on the early morning commute, high seas-strong winds to impact recreational and commercial boaters, or an approaching severe weather event by a strong low pressure system and cold front, the graphic-cast can be a powerful tool to help you make informed decisions that can save your life.

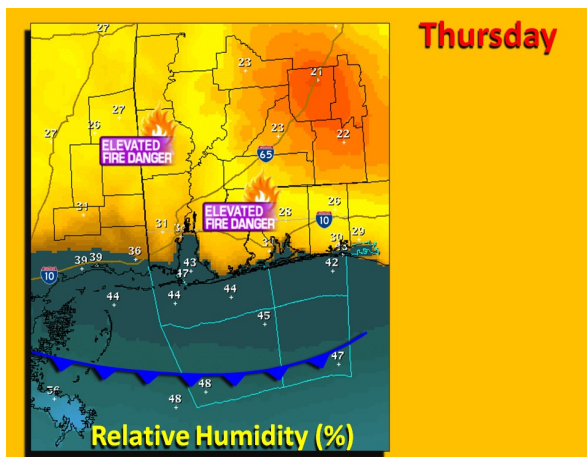
The Graphic-Cast



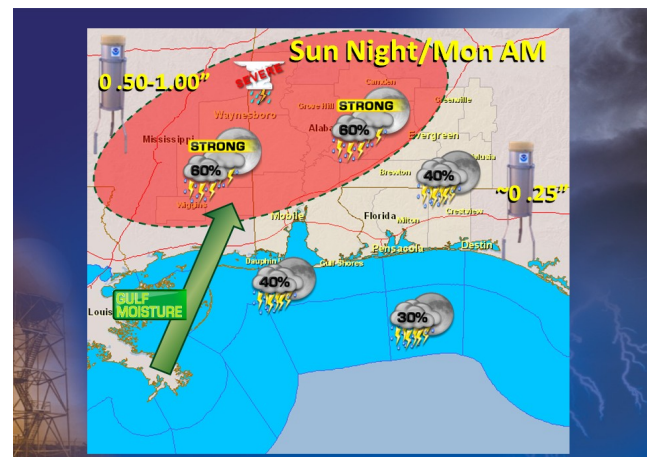
Above: Graphic showing approaching front and increased chances of thunderstorms.



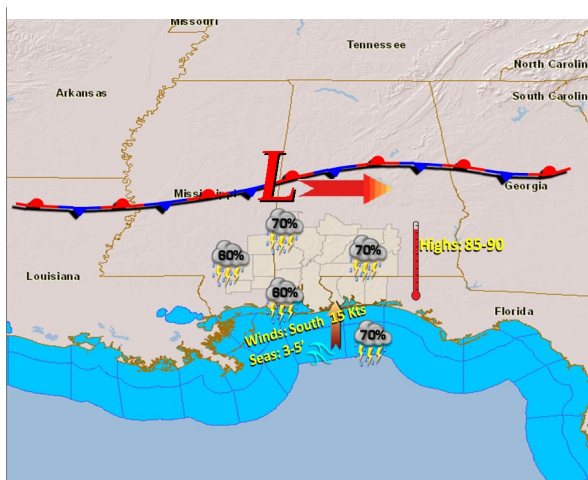
Above: Holiday graphic of temperatures and weather.



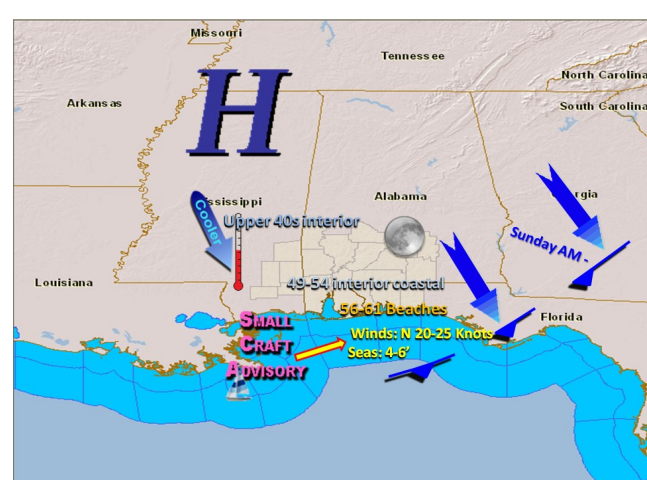
The above graphic showing critically low humidity.



Above: Graphic showing favored area for strong to severe thunderstorms and expected rain amounts.



Above: Graphic showing probabilities of storms south of a stalled frontal wake of frontal passage and boundary and low pressure system. Winds, seas and building.



Above: Graphic showing temperatures in the wake of frontal passage and marine conditions worsening with strong northerly flow and building seas.

Severe Weather Hits the Gulf Coast

Kirk Caceres, Meteorologist

A powerful upper level low pressure system brought a moist and unstable air mass across the area on October 24th. Storms began to develop during the afternoon and increased in strength towards the early evening hours on Sunday October 24th. The first reports on nickel size hail reported in Wilmer and in Semmes. The storms continued to develop and spread over portions of south Alabama. These storms produced nickel size hail in Thomsville and quarter to golf ball size hail in Fulton. The severe thunderstorms also caused wind damage across Clarke County mainly from Jackson northward to Fulton.

Later during the evening, an area of storms developed over southern Baldwin County. This area of storms briefly produced a tornado. The tornado first touched down on Tester Road, Just west of Greek Cemetery Road and south of U.S. highway 90 in Elsanor at 9:10 pm. The only damage here was a few trees down. The tornado then continued northeast and strengthened to EF-1 on the Enhanced Fujita Scale intensity as it reached Gilman Lane.



At this location, a mobile home was blown off its foundation and destroyed. Winds are estimated to have been near 100 mph. After further inspection it appears that the mobile home was not anchored and just resting on its cinder block foundation. A couple of metal sheds were also destroyed. As the tornado continued northeast, it damaged two other mobile homes, shifting one of them off of its foundation. Numerous pine trees were snapped or uprooted at a residence on whispering pines road off Greek Cemetery Road.

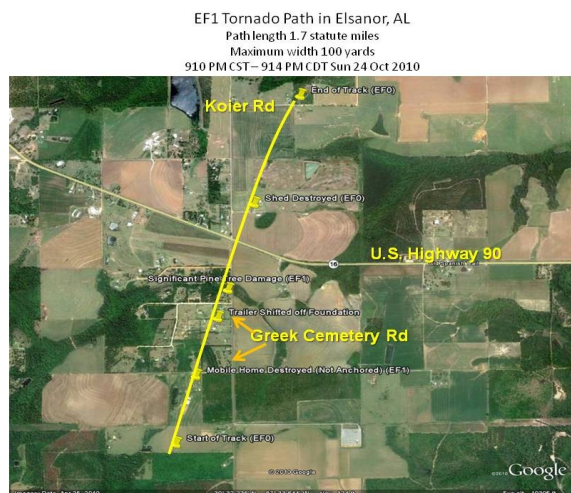


Tornado damage in Elsanor, AL
Photos courtesy of Jason Beaman.

Due to the extent of the tree damage, the tornado is determined to have reached EF-1 intensity at this location with estimated winds of 86 to 100 mph. A brick home at this location only suffered minor shingle damage and a couple of blown out windows. A fence, back porch, and shed were badly damaged. The tornado then continued northeast and weakened.
(continued on page 9)

Severe Weather

Crossing U.S. highway 90 and destroying a metal shed. The tornado lifted on Koier Road, just over a half mile north of U.S. highway 90. The path of the tornado was 1.7 miles with a path width of 50 to 100 yards and was on the ground for 4 minutes. The tornado caused one injury; woman cut her foot on broken glass.



Shortly before 530 am on Monday October 25th, a tornado touched down and caused roof damage at a home at the intersection of Bomar Place and Michael Avenue in west Mobile. The tornado produced minor gutter and fascia damage to 4 homes on Michael Avenue. The tornado continued east along Michael Avenue and caused several trees to suffer damage by being snapped off at the top or losing several large limbs. The winds at the time were estimated to be around 65 mph based on the damage seen at this location. The tornado path at this location was approximately 100 yards.

The second damage point was found at the corner of Michael Boulevard and Azalea Road. At this location the path of the tornado widened to approximately 150

yards and the circulation intensified. Sections of roofing were missing from 2 restaurants, including 1 from a McDonald's, and 1 from a car wash. Several windows were blown out of the McDonald's restaurant. A Chevron gas station next door had several pumps blown over with metal panels blown away from the metal canopy. The winds at this location were estimated to be 92 mph or EF-1 on the Enhanced Fujita tornado scale based on the damage.



Tornado Damage along Azalea Road in Mobile, AL.

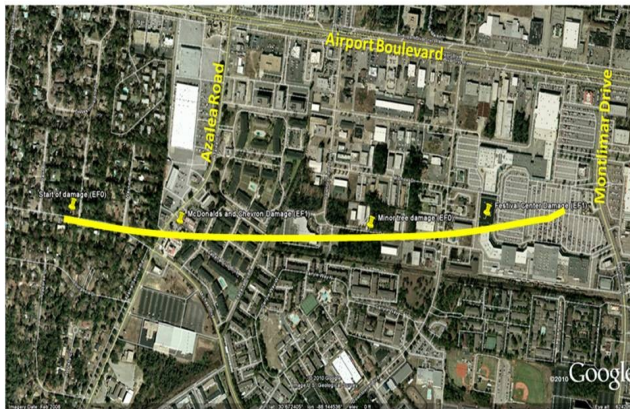
Photos courtesy of Ben Reed.

Severe Weather

The intensity of the damage weakened at the Cabana Apartments between Azalea Road and Downtowner Boulevard. Minor damage to some pine trees with sections of large limbs stripped out were noticed in this area. Wind was estimated to be near 65 mph and a tornado path width of 100 yards.

The tornado re-intensified at the Festival Center shopping center between Downtowner Boulevard and Montlimar Drive. Damage was found on 2 buildings in the Festival Center in which a few sections of roofing were blown off. On the roof of Virginia College, 6 large air conditioning units (HVAC) were damaged and blown off their mounts. One of the air conditioning units was blown off the roof and landed in the parking lot in front of Virginia College. Winds were estimated based on damage to be near 108 mph at this location or EF-1 on the Enhance Fujita Scale.

EF1 Tornado Path in West Mobile
Path length approximately 1 statute mile
Maximum width 150 yards
515 AM CST - 521 AM CDT Mon 25 Oct 2010



Winds were estimated based on damage to be near 108 mph at this location or EF-1 on the Enhance Fujita Scale.

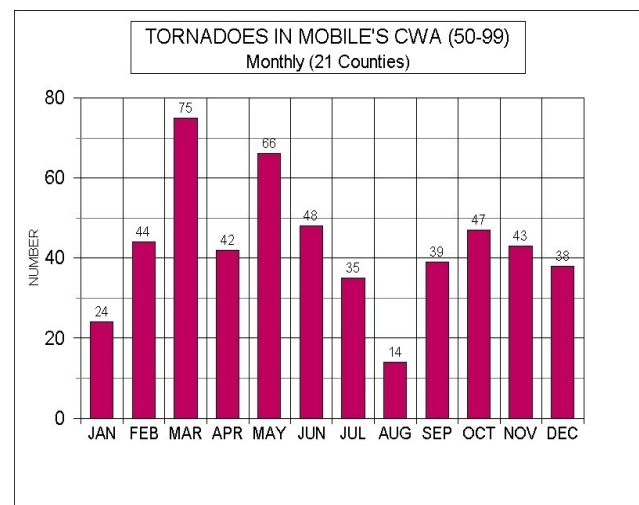
The same storm system that caused the tornado in Mobile continued east into Baldwin County.



A Supercell (most likely the one that caused the tornado in Mobile, AL) at Wilcox Road near I-10 in Baldwin county, AL. This photo is courtesy of Derek Beasley, WPMI-TV.

Severe weather and short lived weak tornadoes are not uncommon for our area in October and November. Below: Mobile's CWA recent tornado climatology.

"Our most recent climatology indicates..."



La Nina and Its' Effects on our Winter Weather

Jack Cullen, Forecaster

Many of you have heard that this winter will be dominated by La Nina that will strengthen and persist through the winter months. Simply put, La Nina is a cooling of the waters in the central and eastern equatorial Pacific Ocean. This cooling is caused by unusually strong trade winds which are the prevailing large-scale surface winds that blow from east to west. As a result of the stronger easterly trades, upwelling is enhanced along the coast of South America, causing the colder than normal surface waters of the eastern Pacific and warmer than normal surface waters over the western Pacific. In fact, ocean surface temperatures in this region will be 3 to 5 degrees Celsius below normal.

The development of La Nina led to an above normal hurricane season in the Atlantic this past summer and will have an effect on the weather across the Gulf Coast this winter. NOAA recently issued its Winter Weather Outlook and the forecast calls for warmer and drier weather this winter across the Gulf Coast. While there will likely be cold and wet periods this winter, the overall average will be for warmer and drier conditions. This will likely exacerbate drought conditions in these areas. All southern states are at risk of having above normal wildfire conditions this winter and continuing into the spring.

Loss Saddens WFO Mobile Family



Debbie Burton, Administrative Support Assistant (ASA), died tragically on the evening of June 8, 2010. Debbie began her NWS career at WFO Mobile in August 1994. Debbie was a very caring and giving member of our office family. She was a key contributor and leader within our organization. We were truly blessed to have had her as our friend and ASA. Debbie was loved by all and will always hold a special place in our hearts and minds.





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National Weather Service Mobile/Pensacola

The Gulf Coast Rumbler

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NOAA NWR Area Listings

KEC-61	Near Mobile, AL	162.550 MHz
KEC-86	Milton, FL	162.400 MHz
KIH-59	Dozier, AL	162.550 MHz
WNG-607	Greenville, AL	162.425 MHz
WNG-640	Leakesville, MS	162.425 MHz
WNG-646	Brewton, AL	162.475 MHz
WWF-55	Jackson, AL	162.500 MHz

NWS Mobile Welcomes New Additions to our Staff

Katherine Sanders is our new office Administrative Support Assistant (ASA). Katherine comes to us from the Naval Air Station in Pensacola, FL where she has been an administrative support assistant there the past year.

Ben Reed and **Melissa McIntier** are our new Electronic Technicians (ETs). Ben Reed comes to our office from Chanhassen, MN where he was the Regional Maintenance Specialist (RMS) there. Melissa McIntier comes to our office from Keesler AFB in Biloxi, MS where she was in Radar Maintenance.